

4164-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2004-N-0451]

Food and Drug Administration Modernization Act of 1997: Modifications to the List of

Recognized Standards, Recognition List Number: 050

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA or Agency) is announcing a publication containing modifications the Agency is making to the list of standards FDA recognizes for use in premarket reviews (FDA Recognized Consensus Standards). This publication, entitled "Modifications to the List of Recognized Standards, Recognition List Number: 050" (Recognition List Number: 050), will assist manufacturers who elect to declare conformity with consensus standards to meet certain requirements for medical devices.

DATES: Submit electronic or written comments concerning this document at any time. These modifications to the list of recognized standards are effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments as follows:

Electronic Submissions

Submit electronic comments in the following way:

• Federal eRulemaking Portal: https://www.regulations.gov. Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to https://www.regulations.gov will be posted to the docket unchanged.

Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on https://www.regulations.gov.

• If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see "Written/Paper Submissions" and "Instructions").

Written/Paper Submissions

Submit written/paper submissions as follows:

- Mail/Hand delivery/Courier (for written/paper submissions): Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.
- For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in "Instructions."

Instructions: All submissions received must include the Docket No. FDA-2004-N-0451 for "Food and Drug Administration Modernization Act of 1997: Modifications to the List of Recognized Standards, Recognition List Number: 050." Received comments will be placed in the docket and, except for those submitted as "Confidential Submissions," publicly viewable at https://www.regulations.gov or at the Dockets Management Staff between 9 a.m. and 4 p.m.,

Monday through Friday. FDA will consider any comments received in determining whether to amend the current listing of modifications to the list of recognized standards, Recognition List Number: 050.

Confidential Submissions--To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states "THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION." The Agency will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on https://www.regulations.gov. Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as "confidential." Any information marked as "confidential" will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: http://www.gpo.gov/fdsys/pkg/FR-2015-09-18/pdf/2015-23389.pdf.

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to https://www.regulations.gov and insert the docket number, found in brackets in the heading of this document, into the "Search" box and follow the

prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

An electronic copy of Recognition List Number: 050 is available on the internet at https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards/ucm123792.htm

. See section IV for electronic access to the searchable database for the current list of FDA recognized consensus standards, including Recognition List Number: 050 modifications and other standards related information. Submit written requests for a single hard copy of the document entitled "Modifications to the List of Recognized Standards, Recognition List Number: 050" to Scott Colburn, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, Rm. 5514, Silver Spring, MD 20993, 301-796-6287. Send one self-addressed adhesive label to assist that office in processing your request, or fax your request to 301-847-8144.

FOR FURTHER INFORMATION CONTACT: Scott Colburn, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, Rm. 5514, Silver Spring, MD 20993, 301-796-6287, CDRHStandardsStaff@fda.hhs.gov.

I. Background

SUPPLEMENTARY INFORMATION:

Section 204 of the Food and Drug Administration Modernization Act of 1997 (FDAMA) (Pub. L. 105-115) amended section 514 of the Federal Food, Drug, and Cosmetic Act (the FD&C Act) (21 U.S.C. 360d). Amended section 514 allows FDA to recognize consensus standards developed by international and national organizations for use in satisfying portions of device premarket review submissions or other requirements.

In the *Federal Register* notice of September 13, 2018 (83 FR 46738), FDA announced the availability of a guidance entitled "Appropriate use of Voluntary Consensus Standards in Premarket Submission for Medical Devices." The guidance describes how FDA has implemented its standard recognition program and is available at https://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm077295.pdf. Modifications to the initial list of recognized standards, as published in the *Federal Register*, can be accessed at https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards/ucm123792.htm

These notices describe the addition, withdrawal, and revision of certain standards recognized by FDA. The Agency maintains hypertext markup language (HTML) and portable document format (PDF) versions of the list of FDA Recognized Consensus Standards.

Additional information on the Agency's standards program is available at https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards/default.htm.

II. Modifications to the List of Recognized Standards, Recognition List Number: 050 FDA is announcing the addition, withdrawal, correction, and revision of certain

consensus standards the Agency is recognizing for use in premarket submissions and other requirements for devices. FDA is incorporating these modifications to the list of FDA Recognized Consensus Standards in the Agency's searchable database. FDA is using the term "Recognition List Number: 050" to identify the current modifications.

In table 1, FDA describes the following modifications: (1) the withdrawal of standards and their replacement by others, if applicable; (2) the correction of errors made by FDA in listing

previously recognized standards; and (3) the changes to the supplementary information sheets of recognized standards that describe revisions to the applicability of the standards.

In section III, FDA lists modifications the Agency is making that involve the initial addition of standards not previously recognized by FDA.

Table 1.--Modifications to the List of Recognized Standards

Old	Replacement	Title of Standard	Change ²
Recognition	Recognition		
No.	No.		
		A. Anesthesiology	
1-85	1-139	ISO 80601-2-61 Second edition 2017-12 (Corrected	Withdrawn and
		version 2018-02) Medical electrical equipmentPart 2-	replaced with newer
		61: Particular requirements for basic safety and essential	version.
		performance of pulse oximeter equipment.	
1-96	1-140	ISO 80601-2-55 Second edition 2018-02 Medical	Withdrawn and
		electrical equipmentPart 2-55: Particular requirements	replaced with newer
		for the basic safety and essential performance of	version.
		respiratory gas monitors.	
	-	B. Biocompatibility	
2-176	2-255	ISO 10993-11 Third edition 2017-09 Biological	Withdrawn and
		evaluation of medical devicesPart 11: Tests for	replaced with newer
		systemic toxicity.	version.
2-204	2-256	ASTM F720–17 Standard Practice for Testing Guinea	Withdrawn and
		Pigs for Contact Allergens: Guinea Pig Maximization	replaced with newer
		Test.	version.
2-233	2-257	ASTM F2382–17e1 Standard Test Method for	Withdrawn and
		Assessment of Circulating Blood-Contacting Medical	replaced with newer
		Device Materials on Partial Thromboplastin Time (PTT).	version.
		C. Cardiovascular	
3-110		AAMI TIR41:2011/(R)2017 Technical Information	Reaffirmation.
		Report Active implantable medical devicesGuidance for	
		designation of left ventricle and implantable cardioverter	
		defibrillator lead connectors and pulse generator	
		connector cavities for implantable pacemakers and	
		implantable cardioverter defibrillators.	
3-123	3-152	IEC 80601-2-30 Edition 1.1 2013-07 Medical electrical	Withdrawn and
		equipment—Part 2-30: Particular requirements for the	replaced with newer
		basic safety and essential performance of automated non-	version.
		invasive sphygmomanometers.	
		D. Dental/Ear, Nose, and Throat (ENT)	
4-214	4-242	ISO 10139-1 Third edition 2018-03 DentistrySoft lining	Withdrawn and
		materials for removable denturesPart 1: Materials for	replaced with newer
		short-term use.	version.
	E.	General I (Quality Systems/Risk Management) (QS/RM)	
5-42		ASTM D903–98 (Reapproved 2017) Standard Test	Reaffirmation.
		Method for Peel or Stripping Strength of Adhesive	
		Bonds.	
	F. Genera	ll II (Electrical Safety/Electromagnetic Compatibility) (ES/EI	MC)

19-8			
		IEC 60601-1-2 Edition 4.0 2014-02 Medical electrical	Extent of recognition.
		equipment-Part 1-2: General requirements for basic	
		safety and essential performance—Collateral Standard:	
		Electromagnetic disturbancesRequirements and tests.	
19-19		IEC TR 60601-4-2 Edition 1.0 2016-05 Medical	Extent of recognition.
		electrical equipment–Part 4-2: Guidance and	
		interpretation—Electromagnetic immunity: performance	
		of medical electrical equipment and medical electrical	
		systems.	
19-21	19-30	AIM Standard 7351731 Rev. 2.00 Medical Electrical	Withdrawn and
		Equipment and System Electromagnetic Immunity Test	replaced with newer
		for Exposure to Radio Frequency Identification Readers-	version.
		An AIM Standard.	
	1	G. General Hospital/General Plastic Surgery (GH/GPS)	T
6-123		ASTM E667–98 (Reapproved 2017) Standard	Reaffirmation.
		Specification for Mercury-in-Glass, Maximum Self-	
		Registering Clinical Thermometers.	
6-254		ASTM F2100-11 (Reapproved 2018) Standard	Reaffirmation.
		Specification for Performance of Materials Used in	
		Medical Face Masks.	
6-301	6-408	ISO 10555-1 Second edition 2013-06-15 Intravascular	Withdrawn and
		cathetersSterile and single-use cathetersPart 1:	replaced with newer
		General requirements [Including AMENDMENT 1	version including
		(2017)].	amendment.
6-352	6-409	ASTM F703–18 Standard Specification for Implantable	Withdrawn and
		Breast Prostheses.	replaced with newer
			version.
		H. In Vitro Diagnostics (IVD)	
7-127	7-275	CLSI EP07 3 rd Edition Interference Testing in Clinical	Withdrawn and
		Chemistry.	replaced with newer
			version.
7-171	7-276	CLSI M38 3 rd Edition Reference Method for Broth	Withdrawn and
		Dilution Antifungal Susceptibility Testing of Filamentous	replaced with newer
		Fungi.	version.
7-201	7-277	Fungi. CLSI GP41 7 th Edition Collection of Diagnostic Venous	version. Withdrawn and
7-201	7-277		Withdrawn and replaced with newer
7-201	7-277	CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens.	Withdrawn and
7-201	7-277	CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth	Withdrawn and replaced with newer
		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens.	Withdrawn and replaced with newer version.
7-204		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts.	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version.
		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth	Withdrawn and replaced with newer version. Withdrawn and replaced with newer
7-204		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts.	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change.
7-204		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version.
7-204 7-217		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts.	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change.
7-204 7-217		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-
7-204 7-217		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-
7-204 7-217 7-240		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement.	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-217.
7-204 7-217 7-240		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement. CLSI EP09-A3 Measurement Procedure Comparison and	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-217.
7-204 7-217 7-240		CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement. CLSI EP09-A3 Measurement Procedure Comparison and Bias Estimation Using Patient Samples; Approved	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-217.
7-204 7-217 7-240 7-245	7-278	CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement. CLSI EP09-A3 Measurement Procedure Comparison and Bias Estimation Using Patient Samples; Approved GuidelineThird Edition. CLSI M07 11 th Edition Methods for Dilution	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-217. Withdrawn.
7-204 7-217 7-240 7-245	7-278	CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement. CLSI EP09-A3 Measurement Procedure Comparison and Bias Estimation Using Patient Samples; Approved GuidelineThird Edition. CLSI M07 11 th Edition Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-217. Withdrawn.
7-204 7-217 7-240 7-245 7-254	7-278	CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement. CLSI EP09-A3 Measurement Procedure Comparison and Bias Estimation Using Patient Samples; Approved GuidelineThird Edition. CLSI M07 11 th Edition Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically.	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-217. Withdrawn.
7-204 7-217 7-240 7-245	7-278	CLSI GP41 7 th Edition Collection of Diagnostic Venous Blood Specimens. CLSI M27 4 th Edition Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts. CLSI M60 1 st Edition Performance Standards for Antifungal Susceptibility Testing of Yeasts. CLSI M27-S4 Reference Method for Broth Dilution Antifungal Susceptibility Testing of Yeasts; Fourth Informational Supplement. CLSI EP09-A3 Measurement Procedure Comparison and Bias Estimation Using Patient Samples; Approved GuidelineThird Edition. CLSI M07 11 th Edition Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That	Withdrawn and replaced with newer version. Withdrawn and replaced with newer version. Title change. Withdrawn. See 7-217. Withdrawn.

7-271	7-281	CLSI M100 28 th Edition Performance Standards for	Withdrawn and
7-271	7-201	Antimicrobial Susceptibility Testing.	replaced with newer
		Anumicrobial susceptionity Testing.	version.
		I Matariala	version.
0.57	0.465	I. Materials	W'4.1
8-57	8-465	ISO 5832-2 Fourth edition 2018-03 Implants for surgery-	Withdrawn and
		-Metallic materialsPart 2: Unalloyed titanium.	replaced with newer
		1000 1 T1011 0 T T	version.
8-112		ASTM F1044-05 (Reapproved 2017)e1 Standard Test	Reaffirmation.
		Method for Shear Testing of Calcium Phosphate Coatings	
		and Metallic Coatings.	
8-128	8-466	ASTM F2213–17 Standard Test Method for	Withdrawn and
		Measurement of Magnetically Induced Torque on	replaced with newer
		Medical Devices in the Magnetic Resonance	version.
		Environment.	
8-330	8-467	ASTM F1978–18 Standard Test Method for Measuring	Withdrawn and
		Abrasion Resistance of Metallic Thermal Spray Coatings	replaced with newer
		by Using the Taber Abraser.	version.
8-334	8-468	ASTM F2459–18 Standard Test Method for Extracting	Withdrawn and
		Residue from Metallic Medical Components and	replaced with newer
		Quantifying via Gravimetric Analysis.	version.
8-372	8-469	ASTM F560–17 Standard Specification for Unalloyed	Withdrawn and
		Tantalum for Surgical Implant Applications (UNS	replaced with newer
		R05200, UNS R05400).	version.
8-380		ASTM F1160–14 (Reapproved 2017)e1 Standard Test	Reaffirmation.
		Method for Shear and Bending Fatigue Testing of	
		Calcium Phosphate and Metallic Medical and Composite	
		Calcium Phosphate/Metallic Coatings.	
8-382	8-470	ASTM F2102–17 Standard Guide for Evaluating the	Withdrawn and
		Extent of Oxidation in Polyethylene Fabricated Forms	replaced with newer
		Intended for Surgical Implants.	version.
8-390	8-471	ASTM F1925–17 Standard Specification for Semi-	Withdrawn and
		Crystalline Poly(lactide) Polymer and Copolymer Resins	replaced with newer
		for Surgical Implants.	version.
8-412		ASTM F2537–06 (Reapproved 2017) Standard Practice	Reaffirmation.
		for Calibration of Linear Displacement Sensor Systems	
		Used to Measure Micromotion.	
8-414	8-472	ASTM F2847–17 Standard Practice for Reporting and	Withdrawn and
		Assessment of Residues on Single-Use Implants and	replaced with newer
		Single-Use Sterile Instruments.	version.
8-419	8-473	ASTM F2885–17 Standard Specification for Metal	Withdrawn and
		Injection Molded Titanium-6Aluminum-4Vanadium	replaced with newer
		Components for Surgical Implant Applications.	version. Extent of
			recognition.
8-420	8-474	ASTM F2886–17 Standard Specification for Metal	Withdrawn and
		Injection Molded Cobalt-28Chromium-6Molybdenum	replaced with newer
		Components for Surgical Implant Applications.	version.
8-436	8-475	ASTM F2026-17 Standard Specification for	Withdrawn and
		Polyetheretherketone (PEEK) Polymers for Surgical	replaced with newer
		Implant Applications.	version.
8-448	8-476	ASTM F2004–17 Standard Test Method for	Withdrawn and
		Transformation Temperature of Nickel-Titanium Alloys	replaced with newer
		by Thermal Analysis.	version.

8-454	8-477	ASTM F2129–17b Standard Test Method for Conducting	Withdrawn and
		Cyclic Potentiodynamic Polarization Measurements to	replaced with newer
		Determine the Corrosion Susceptibility of Small Implant	version.
		Devices.	
		J. Nanotechnology	
		No new entries at this time.	
	•	K. Neurology	
		No new entries at this time.	
	L. Obs	tetrics-Gynecology/Gastroenterology/Urology (OB-Gyn/G/Urol	ogv)
9-43	9-117	ISO 16038 Second edition 2017-11 Male condoms	Withdrawn and
,	, 11,	Guidance on the use of ISO 4074 and ISO 23409 in the	replaced with newer
		quality management of condoms.	version.
9-67		ASTM D7661–10 (Reapproved 2017) Standard Test	Reaffirmation.
<i>)</i> -07		Method for Determining Compatibility of Personal	Realitimation.
		Lubricants with Natural Rubber Latex Condoms.	
9-92	9-118	ISO 8637-1 First edition 2017-11 Extracorporeal systems	Withdrawn and
9-92	9-110	for blood purificationPart 1: Haemodialysers,	replaced with newer
		haemodiafilters, haemofilters and haemoconcentrators.	version.
0.05	0.110		
9-95	9-119	IEC 60601-2-36 Edition 2.0 2014-04 Medical electrical	Withdrawn and
		equipment–Part 2-36: Particular requirements for the	replaced with new
		safety of equipment for extracorporeally induced	recognition number.
0.110	0.120	lithotripsy.	XX7'.1 1 1
9-112	9-120	ASTM D3492–16 Standard Specification for Rubber	Withdrawn and
		Contraceptives (Male Condoms).	replaced with newer
			version.
		M. Ophthalmic	1
10-56		ANSI Z80.12-2007 (R2017) American National Standard	Reaffirmation.
		for Ophthalmics–Multifocal Intraocular Lenses.	
10-57		ANSI Z80.13-2007 (R2017) American National Standard	Reaffirmation.
		for Ophthalmics–Phakic Intraocular Lenses.	
10-60	10-111	ISO 11981 Third edition 2017-11 Ophthalmic optics	Withdrawn and
		Contact lenses and contact lens care products	replaced with newer
		Determination of physical compatibility of contact lens	version.
		care products with contact lenses.	
10-67	10-112	ISO 11986 Third edition 2017-11 Ophthalmic optics	Withdrawn and
		Contact lenses and contact lens care products	replaced with newer
		Determination of preservative uptake and release.	version.
10-84		ANSI Z80.11-2012 (R2017) American National Standard	Reaffirmation.
		for Ophthalmics–Laser Systems for Corneal Reshaping.	
		N. Orthopedic	
11-185		ASTM F2267-04 (Reapproved 2018) Standard Test	Reaffirmation.
		Method for Measuring Load Induced Subsidence of	
		Intervertebral Body Fusion Device Under Static Axial	
		Compression.	
11-197		ASTM F983–86 (Reapproved 2018) Standard Practice	Reaffirmation.
//		for Permanent Marking of Orthopaedic Implant	1.Julililimiloll.
		Components.	
11-199		ASTM F565–04 (Reapproved 2018) Standard Practice	Reaffirmation.
11-1/2		for Care and Handling of Orthopedic Implants and	Keammanon.
		Instruments.	
11-203	11-322	ASTM F1541–17 Standard Specification and Test	Withdrawn and
11-203	11-322	Methods for External Skeletal Fixation Devices.	
		iviethous for external Skeletal Fixation Devices.	replaced with newer
			version.

11-224	11-323	ASTM F2706–17 Standard Test Methods for Occipital-	Withdrawn and
11-224	11-323	Cervical and Occipital-Cervical-Thoracic Spinal Implant	replaced with newer
		Constructs in a Vertebrectomy Model.	version.
11-226	8-478	ASTM F1089–18 Standard Test Method for Corrosion of	Withdrawn and
11-220	0-476	Surgical Instruments.	replaced with newer
		Surgical instruments.	version. Transferred.
11-227	11-324	ASTM F366–17 Standard Specification for Fixation Pins	Withdrawn and
11-227	11-324	and Wires.	replaced with newer
		and wires.	version.
11-228	11-325	ASTM F564–17 Standard Specification and Test	Withdrawn and
11 220	11 323	Methods for Metallic Bone Staples.	replaced with newer
		Wellous for Metalife Bone Staples.	version.
11-245	11-326	ASTM F384–17 Standard Specifications and Test	Withdrawn and
11 2 .0	11020	Methods for Metallic Angled Orthopedic Fracture	replaced with newer
		Fixation Devices.	version.
11-257	11-327	ASTM F543–17 Standard Specification and Test	Withdrawn and
		Methods for Metallic Medical Bone Screws.	replaced with newer
			version.
11-261	11-328	ASTM F1378–17 Standard Specification for Shoulder	Withdrawn and
		Prostheses.	replaced with newer
			version.
11-271	11-329	ASTM F2180–17 Standard Specification for Metallic	Withdrawn and
		Implantable Strands and Cables.	replaced with newer
			version.
11-284	11-330	ASTM F2028–17 Standard Test Methods for Dynamic	Withdrawn and
		Evaluation of Glenoid Loosening or Disassociation.	replaced with newer
			version.
11-288	11-331	ASTM F2077–17 Test Methods for Intervertebral Body	Withdrawn and
		Fusion Devices.	replaced with newer
			version.
11-296	11-332	ASTM F2193–18 Standard Specification and Test	Withdrawn and
		Methods for Components Used in the Surgical Fixation	replaced with newer
		of the Spinal Skeletal System.	version.
11-297	11-333	ASTM F382–17 Standard Specification and Test Method	Withdrawn and
		for Metallic Bone Plates.	replaced with newer
11 210		ACTM F1(11, 00 /P 10010) 0: 1.1	version.
11-310		ASTM F1611–00 (Reapproved 2018) Standard	Reaffirmation.
11 215	11 224	Specification for Intramedullary Reamers.	W/:41- J
11-315	11-334	ASTM F1829–17 Standard Test Method for Static	Withdrawn and
		Evaluation of Anatomic Glenoid Locking Mechanism in Shear.	replaced with newer version.
11-318	11-335	ASTM F3141–17a Standard Guide for Total Knee	Withdrawn and
11-310	11-333	Replacement Loading Profiles.	replaced with newer
		Replacement Loading 1 formes.	version.
		O. Physical Medicine	, 5151011.
16-159	16-202	ISO 7176-2 Third edition 2017-10 WheelchairsPart 2:	Withdrawn and
	-0 -02	Determination of dynamic stability of electric	replaced with newer
		wheelchairs.	version.
16-185		ANSI RESNA WC-2:2009 American National Standard	Extent of recognition.
		for WheelchairsVolume 2, Additional Requirements for	
		Wheelchairs (including Scooters) with Electrical Systems	
			i e
		Section 21: Requirements and test methods for	
		Section 21: Requirements and test methods for electromagnetic compatibility of electrically powered	

16-193	16-203	ASME A18.1-2017 Safety Standard for Platform Lifts	Withdrawn and
		and Stairway Chairlifts.	replaced with newer version.
		P. Radiology	version.
12-202		IEC 60601-2-43 Edition 2.0 2010-03 Medical electrical	Recognition restored
		equipment–Part 2-43: Particular requirements for the	with transition period.
		safety and essential performance of X-ray equipment for	
		interventional procedures.	
12-204		IEC 60601-2-28 Edition 2.0 2010-03 Medical electrical	Recognition restored
		equipment–Part 2-28: Particular requirements for the	with transition period.
		basic safety and essential performance of X-ray tube	
		assemblies for medical diagnosis.	
12-296	12-317	IEC 60601-2-54 CONSOLIDATED VERSION Edition	Withdrawn and
		1.1 2015-04 Medical electrical equipment–Part 2-54:	replaced with newer
		Particular requirements for the basic safety and essential	version including amendment.
		performance of X-ray equipment for radiography and	amenament.
		radioscopy [Including: Amendment 2 (2018)]. Q. Software/Informatics	
		No new entries at this time.	
		R. Sterility	
14-138	14-512	ISO 13408-2 Second edition 2018-01 Aseptic processing	Withdrawn and
14 130	14 312	of health care productsPart 2: Sterilizing filtration.	replaced with newer
		of health care products if are 2. Stermizing matthon.	version.
14-275		ANSI/AAMI ST41:2008/(R)2018 Ethylene oxide	Reaffirmation.
		sterilization in health care facilities: Safety and	
		effectiveness.	
14-293		ANSI/AAMI ST50:2004/(R)2018 Dry heat (heated air)	Reaffirmation.
		sterilizers.	
14-294		ANSI/AAMI ST40:2004/(R)2018 Table-top dry heat	Reaffirmation.
		(heated air) sterilization and sterility assurance in health	
		care facilities.	
14-295		ANSI/AAMI ST81:2004/(R)2016 Sterilization of medical	Withdrawn. See 14-
		devicesInformation to be provided by the manufacturer	515.
		for the processing of resterilizable medical devices.	
14-344	14-513	ASTM F2825–18 Standard Practice for Climatic	Withdrawn and
		Stressing of Packaging Systems for Single Parcel	replaced with newer
44.45=		Delivery.	version.
14-407	14-514	ISO 11737-1 Third edition 2018-01 Sterilization of health	Withdrawn and
		care productsMicrobiological methodsPart 1:	replaced with newer
		Determination of a population of microorganisms on	version.
		products.	
		S. Tissue Engineering	
		No new entries at this time.	

III. Listing of New Entries

In table 2, FDA provides the listing of new entries and consensus standards added as modifications to the list of recognized standards under Recognition List Number: 050.

All standard titles in this table conform to the style requirements of the respective organizations.

2 Standards that are "Withdrawn" or "Withdrawn and replaced with newer version" will have a transition period with an expiration date as noted in the recognition database https://www.access data.fda.gov/scripts/cdrh/cfdocs/cfStandards/search.cfm.

Table 2.--New Entries to the List of Recognized Standards

Recognition	Title of Standard ¹	Reference No. and Date
No.	Thie of Standard	Reference 1 to: and Date
	A. Anesthesiology	
	No new entries at this time.	
	B. Biocompatibility	
	No new entries at this time.	
	C. Cardiovascular	
3-153	Standard Guide for Coating Inspection and Acute Particulate Characterization of Coated Drug-Eluting Vascular Stent Systems.	ASTM F2743–11.
3-154	Standard Guide for Fatigue-to-Fracture (FtF) Methodology for Cardiovascular Medical Devices.	ASTM F3211–17.
3-155	Medical electrical equipment—Part 2-47: Particular requirements for the basic safety and essential performance of ambulatory electrocardiographic systems.	IEC 60601-2-47 Edition 2.0 2012-02.
3-156	Implants for surgeryActive implantable medical devicesPart 1: General requirements for safety, marking and for information to be provided by the manufacturer.	ISO 14708-1 Second edition 2014-08-15.
	D. Dental/Ear, Nose, and Throat (ENT)	
4-243	Corrosion Test Methods.	ANSI/ADA Standard No. 97:2002/ISO 10271:2001 Reaffirmed by ANSI: May 29, 2013.
4-244	DentistryTest methods for rotary instruments.	ISO 8325 Second edition 2004-09-15.
4-245	DentistryCorrosion test methods for metallic materials.	ISO 10271 Second edition 2011-08-01.
4-246	DentistryPre-capsulated dental amalgam.	ISO 20749 First edition 2017- 03.
4-247	DentistryLaser welding and filler materials.	ISO 28319 Second edition 2018-04.
	E. General I (Quality Systems/Risk Management) (QS/I	RM)
5-118	Guidance for the creation of physiologic data and waveform databases to demonstrate reasonable assurance of the safety and effectiveness of alarm system algorithms.	AAMI TIR66:2017.
5-119	Medical devicesConnectors for reservoir delivery systems for healthcare applicationsPart 3: Enteral application.	ISO 18250-3 First edition 2018-06.
	F. General II (Electrical Safety/Electromagnetic Compatibility)	
19-31	American National Standard Recommended Practice for the Immunity Measurement of Electrical and Electronic Equipment.	ANSI C63.15-2017 (Revision of ANSI C63.15-2016).
	G. General Hospital/General Plastic Surgery (GH/GP)	<u>S)</u>
	No new entries at this time.	
7.292	H. In Vitro Diagnostics (IVD)	CLCLMCO 1 / E P.
7-282	Performance Standards for Antifungal Susceptibility Testing of Yeasts.	CLSI M60 1st Edition.
7-283	Essential Tools for Implementation and Management of a Point-of-Care Testing Program.	CLSI POCT04 3rd Edition.
7-284	Supplemental Tables for Interference Testing in Clinical Chemistry.	CLSI EP37 1st Edition.
	I. Materials	
8-479	Implants for surgeryHomopolymers, copolymers and blends on poly(lactide)In vitro degradation testing.	ISO 13781 Second edition 2017-07.
	J. Nanotechnology	
	No new entries at this time.	

Table 2.--New Entries to the List of Recognized Standards

	Table 2New Entries to the List of Recognized Standa	
Recognition No.	Title of Standard ¹	Reference No. and Date
	K. Neurology	
	No new entries at this time.	
	L. Obstetrics-Gynecology/Gastroenterology/Urology (OB-Gyn	/G/Urology)
	No new entries at this time.	
	M. Ophthalmic	
10-113	American National Standard for OphthalmicsToric Intraocular Lenses.	ANSI Z80.30-2018.
	N. Orthopedic	
11-336	Wear of implant materialsPolymer and metal wear articles Isolation and characterization.	ISO 17853 Third edition 2011-03-01.
11-337	Implants for surgeryRoentgen stereophotogrammetric analysis for the assessment of migration of orthopaedic implants.	ISO 16087 First edition 2013- 10-01.
11-338	Implants for surgeryDetermination of impact resistance of ceramic femoral heads for hip joint prostheses.	ISO 11491 First edition 2017- 07.
11-339	Implants for surgeryPartial and total hip joint prosthesesPart 2: Articulating surfaces made of metallic, ceramic and plastics materials [Including AMENDMENT1 (2016)].	ISO 7206-2 Third edition 2011-04-01 AMENDMENT 1 2016-09-15.
11-340	Standard Guide for Assessment of Hard-on-Hard Articulation Total Hip Replacement and Hip Resurfacing Arthroplasty Devices.	ASTM F3018–17.
11-341	Standard Test Method for Cyclic Fatigue Testing of Metal Tibial Tray Components of Unicondylar Knee Joint Replacements.	ASTM F3140–17.
	O. Physical Medicine	
	No new entries at this time.	
	P. Radiology	
12-318	Medical electrical equipment–Part 2-64: Particular requirements for the basic safety and essential performance of light ion beam medical electrical equipment.	IEC 60601-2-64 Edition 1.0 2014-09.
12-319	Medical electrical equipment—Part 2-68: Particular requirements for the basic safety and essential performance of X-ray-based image-guided radiotherapy equipment for use with electron accelerators, light ion beam therapy equipment and radionuclide beam therapy equipment.	IEC 60601-2-68 Edition 1.0 2014-09.
12-320	Medical electrical equipment-Medical light ion beam equipment-	IEC 62667 Edition 1.0 2017-
	Performance characteristics.	08.
	Q. Software/Informatics	1
	No new entries at this time.	
	R. Sterility	T
14-515	Processing of health care productsInformation to be provided by the medical device manufacturer for the processing of medical devices.	ISO 17664 Second edition 2017-10.
14-516	Standard Test Method for Detecting Leaks in Nonporous Packaging or Flexible Barrier Materials by Dye Penetration.	ASTM F3039–15.
14-517	Standard Guide for Application of Test Soils for the Validation of Cleaning Methods for Reusable Medical Devices.	ASTM F3293–18.
	S. Tissue Engineering	
15-55	Standard Guide for Micro-computed Tomography of Tissue Engineered Scaffolds.	ASTM F3259–17.
1		1

All standard titles in this table conform to the style requirements of the respective organizations.

IV. List of Recognized Standards

FDA maintains the current list of FDA Recognized Consensus Standards in a searchable

database that may be accessed at

https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfStandards/search.cfm. Such standards are

those that FDA has recognized by notice published in the Federal Register or that FDA has

decided to recognize but for which recognition is pending (because a periodic notice has not yet

appeared in the Federal Register). FDA will announce additional modifications and revisions to

the list of recognized consensus standards, as needed, in the Federal Register once a year, or

more often if necessary.

V. Recommendation of Standards for Recognition by FDA

Any person may recommend consensus standards as candidates for recognition under

section 514 of the FD&C Act by submitting such recommendations, with reasons for the

recommendation, to CDRHStandardsStaff@fda.hhs.gov. To be considered, such

recommendations should contain, at a minimum, the following information available at

https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards/ucm123739.htm.

Dated: October 16, 2018.

Leslie Kux,

Associate Commissioner for Policy.

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